STRATEGIC PLAN UPDATE
FOR
HAWAII'S ENVIRONMENTAL PROTECTION PROGRAMS

Hawaii State Department of Health
September 2001

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OVERVIEW OF UPDATE TO THE ENVIRONMENTAL PROTECTION PROGRAMS STRATEGIC PLAN

The Hawaii State Department of Health (DOH) completed the Strategic Plan for Hawaii's Environmental Protection Programs in January 1999. The plan described the goals, objectives and strategies for a new approach to environmental management. In accordance with DOH's primary goal of protecting and enhancing the health of the people of Hawaii, the 1999 plan identified improvements in environmental management so that available resources are directed to solving problems with the greatest risk first.

The 1999 plan took a comprehensive look at the core programs that protect the state's environment. Program staff review and address the environmental impacts of development, respond to environmental emergencies, and implement environmental policies in accordance with environmental rules. The strategic plan discussed the history, organization, mission, goals, objectives, strategies, and performance measures of the various environmental protection programs, and sets forth targets to measure the capability of programs in meeting community needs.

The 1999 plan also identified the special challenges involved in protecting Hawaii's unique environment. At the same time, it mapped out new approaches for addressing those challenges so that progress could be made in meeting the needs of the community. In particular, the plan called for the state to improve its capability to solve serious environmental problems by using risk assessment, streamlining the permitting process and developing a priority-setting system.

The strategic plan was developed specifically for the DOH branches that protect Hawaii's unique environment and manage the core environmental protection programs; these consist of the Environmental Planning Office (EPO), the Hazard Evaluation and Emergency Response (HEER) Office, Clean Air Branch (CAB), Clean Water Branch (CWB), Safe Drinking Water Branch (SDWB), Solid and Hazardous Waste Branch (SHWB), Wastewater Branch (WWB), and the Noise, Radiation, and Indoor Air Quality (NRIAQ) Branch.

This document is an update in 2001 of the tasks and objectives that were identified in the 1999 plan. For the most part, organization, mission, and goals have remained virtually the same. The update focuses primarily on changes to targets, objectives, strategies and performance measures. Because of the ever-changing nature of the environmental conditions, certain targets identified in the 1999 plan have been altered to reflect the reality of the actual conditions. In addition, the NRIAQ Branch, which handles indoor environmental issues, is not represented in this update; the indoor environment program is currently undergoing major changes and staff will prepare an update to their program in the near future.

Targeted benchmarks that were once acceptable are no longer adequate, and new ones are set to guide program efforts. For example, the Clean Water Branch's target for "Beach Closure Days Due to Sewage or Chemical Releases" in the 1999 strategic plan is 5 days. In 2001, it was determined from actual events that this figure is unrealistic. Therefore, the target for beach closure days has been changed to reflect the actual conditions around the state; 16 days is found to be a more accurate figure. This update also takes note of instances where objectives and strategies described in the 1999 plan have been accomplished. Any changes noted in this update are intended to improve services to the public.

The format of this update does not follow a consistent pattern because of differences in the type of information that each program contributed. Underlined and *italized* text reflect changes/updates.

ENVIRONMENTAL GOALS

The 1999 strategic plan identified environmental goals to protect Hawaii's air, lands and waters. The different environmental programs in the department monitored and tracked specified environmental conditions to ensure that the state's environment is protected.

Air Quality

The Clean Air Branch met every goal it had set for the year 2000. The program continues to assess emissions and monitor the air quality throughout the state, including areas around larger sources of manmade pollution. The data provides a measure to the program on the state's air quality as well as feedback on unplanned air releases from industrial sources. For consistency with the annual report, *Indicators of Environmental Quality,* data for SO_2 and PM_{10} collected at the Honolulu station and the data for the highest 1-hour average for CO are included in the update of Hawaii's Air Quality Compared to National Standards.

Beginning in 1998, the Toxic Releases Indicators were changed by including additional industries, most notably power generating stations, in the calculation of air emissions. This addition was not included in the 1999 strategic plan.

Land

The Department of Health continues to focus on decreasing the sources of pollutants and contaminants in order to protect the state's lands. The 1999 strategic plan identified a steady increase in the percentage of solid waste that is reused or recycled. This is a positive aspect of the solid and hazardous waste management programs, because the islands have limited space for landfills.

An important part of decreasing sources of pollutants is the cleanup of underground storage tank (UST) sites. In the 1999 strategic plan, 300 sites were noted in the cleanup count. At the time of this update, the UST program has overseen the cleanup of *1113* sites; this is clearly a significant achievement in protecting the restoration and improvement of the state's resources.

Groundwater

Safe drinking water is vital to public health. The Department of Health continues to focus on the prevention of aquifer contamination by safeguarding the area around a well. The clean water, safe drinking water and wastewater programs play a major role in safeguarding this important resource.

Inland Water

Protecting upstream sources and inland waters is important because they eventually flow into the coastal waters of the state. The Department of Health is continuously working with community groups and other government agencies to identify problem areas so appropriate standards can be put in place safeguard inland waters.

Coastal Water
The coastal waters of the state continue to draw visitors and residents for recreational purposes and also to harvest its bounty on a year-round basis. It is therefore very critical to keep a close eye on any discharge that could threaten public health. Any release of pollutants into the coastal waters, whether intentional or unintended, has to be cleaned up immediately. The affected area is also closed off to public access to protect the public from unsafe conditions.

ENVIRONMENTAL PLANNING OFFICE

Federal Laws and Regulations
Environmental laws have become increasingly complex, and additional increments in environmental improvement are more difficult to achieve. The complicated nature of environmental protection has required crisis policy development and the extensive use of planning. The Environmental Planning Office (EPO) was established to fulfill that need.

Organizational Structure
The EPO has *eight* staff members to implement the following functions. These functions are listed in approximate order of priority, although priorities vary with seasonal deadlines. For example, the legislative coordination function becomes the top-priority task during the annual sessions, and then in early summer the grants' preparation function dominates the work schedules of EPO staff.

Two State-funded program positions are assigned to land use planning reviews and provision of Geographic Information System (GIS) services. Planning and policy, outreach, technical support and information management, and grants preparations are carried out by *four* federally funded program staff *and one state funded staff*. The federally funded EPO manager ensures that all of the functions are integrated where needed and carried out in a timely manner. One federally funded secretarial position provides clerical support for all of the EPO's functions. Duties are reassigned or low priority work delayed in order to accommodate the legislative coordination function during the annual legislative session.

Planning and Policy Function
Strategic planning and policy discussions, and drafting and review of documents are conducted within the format of a series of planning meetings with one or more committees, *formed as needed* and made up of representatives from each applicable Environmental Health Administration (EHA) environmental or public health management-related program.

Land use planning review function
The EPO staff is directly responsible for coordinating environmental management program comments on all land use planning documents received by the DOH, and also for compiling coordinated replies to correspondence on environmental management issues received in the office of the Director of Health.

A computerized tracking system is used to record dates for receipt of documents for review, the types of projects on specific sites (based on Tax Map Key), and transmittal of EHA comment letters.

EPO staff also attends land use planning meetings when controversial projects require additional review and comment.

Legislative coordination function
From early January to late May in each calendar year, and as needed at other times, the EPO provides legislative liaison services for EHA programs.

Grants' Preparation
The EPO collects, reviews and submits annual federal work plans for the EHA. Annual work plans will, beginning in FY-98, be reviewed for consistency with the programs' strategic plans.

Technical Support/Information Management
The EPO provides technical and information management support to other EHA programs in their use of Geographic Information Systems (GIS) and databases.

The EPO also seeks to protect recreational users of Hawaii's waters from minor gastro-intestinal illnesses, and serve to protect aquatic ecosystems from damaging pollutant levels, through developing reliable water quality standards and improving methods of water quality monitoring. The EPO's Stream Assessment Program, which is focused on development and implementation of rapid biological and habitat assessments for aquatic communities in streams as a component of water quality monitoring, is a watershed-based activity that is being used to develop indicators for Hawaii's streams.

Outreach Function
The DOH's public advisory committee for the Goals and Indicators Project, now known as the Environmental Management Advisory Group (EMAG), has been retained as an external policy advisory body to the DOH. The EMAG serves to review the DOH's strategic plan for consistency with previously developed environmental goals and indicators, and advises the DOH on effective ways to educate the public and solicit public comment on the DOH's environmental management policies. Committees for specific purposes are formed as needed; for example, a Water Quality Standards Technical Advisory Group (WQS TAG) provides assistance with outreach and technical issues when the State's Water Quality Standards, compiled in H.A.R. Chapter 11-54, are reviewed and amended on the three-year cycle required by EPA.

Outreach activities also include public presentations and preparation and distribution of brochures describing the DOH's environmental management initiatives and results in Hawaii. Current outreach activities are mainly focused on the federal Total Maximum Daily Load (TMDL) initiative and the environmental impacts of polluted runoff; and include presentations to various community groups on water quality standards issues and water quality in general. Other presentations are made to groups such as neighborhood boards, as requested.

Program Mission
The mission of the Environmental Planning Office is to enhance environmental management by the other offices and divisions within the Environmental Health Administration through providing planning assistance, coordination services, information management and legislative support.

Challenges

Implementing, with excellence, the numerous functions of the office with only one or fewer staff members per area of responsibility.

- Enlisting the vital participation of staff from other programs in the planning process.

Prioritized Objectives & Strategies

Objective A. Strategic Planning and Policy

Develop *and maintain* a long-term strategic plan jointly with the EPA that clearly states and integrates goals, management strategies, and priority areas for all the DOH environmental programs.

Strategy:

✧ Organize, setup, and facilitate DOH meetings; distribute draft planning documents for review and comment by DOH managers and the deputy director for environmental health; edit and format documents to achieve uniform style; draft documents where necessary; keep the EPA informed of progress on at least a quarterly basis through conference calls and written reports; coordinate joint planning sessions with the EPA; keep planning process on schedule.

Objective B. Land Use Planning Review

Prevent chronic degradation of the environment *from* the beginning of the development process by addressing environmental concerns early in the land use decision-making process.

Strategies:

✧ Coordinate comments from environmental programs on land use planning documents (e.g. development plans, zoning change requests, etc.) received by the DOH which require evaluations for potential pollution problems and/or control methods to mitigate the potential problems.

✧ *Attend planning meetings on controversial developments where additional review and comment on environmental impacts may be essential.*

Objective C. Legislative Coordination

Liaise with other EHA programs to assure timely and coordinated legislative document review and submission to the legislature.

Strategy:

✧ Provide legislative liaison services for EHA programs. These services include preparation and explanation of documents describing legislative procedures and policies for the current year, review of legislative bills and testimony, copying and distribution of testimony in time for committee hearings, preparation of documents summarizing the status and fate of bills as they move through the legislative process, and preparing final summaries of legislative actions taken on all bills affecting EHA programs.

Objective D. Grants Coordination

Improve environmental *program* efficiency and efficacy through proper document coordination, handling, and accessibility.

***Strategy*:**

✧ Provide grants' preparation services, and compile and make available to the public current administrative rules, written plans and policies, applied research reports prepared by DOH contractors, and other relevant reports. Review all work plans, work plan amendments, plans, policies and reports for consistency with strategic plans; prepare application pages; obtain signatures; transmit applications to the EPA; maintain grant files; provide required grants-and

contracts-related information to the EPA; provide staff with information on the State Procurement Code, especially contract requirements; maintain and update library materials related to strategic planning and maintain an up-to-date on-line library catalog of program documents available for public review.

Objective E. Technical Support / Information Management

Improve environmental management through expanding the use, and enhancing the quality of environmental information used for environmental protection, and by setting state standards for surface water quality.

Strategies:

- ✧ Provide scientific and technical advice, GIS mapping services, coordinated comments on land use, data analysis and reduction services, and assist with identification of environmental, public health, and administrative program indicators, or locate sources of such information (documents, or experts from other agencies or institutions); ensure that both strategic plans and annual program activities are based on up-to-date scientific results that are valid in Hawaii's environment, and that accurate maps are used to summarize the geographic relationship between stressors (potential pollution sources) and receptors (humans and ecosystems); update the DOH's worldwide web pages at least annually, or when program changes need to be reported.
- ✧ Obtain, from DOH programs, a list of desired statewide GIS maps and a list of databases, or sections of databases, suitable for placement on the DOH computer network and on the DOH's worldwide web pages.
- ✧ Describe baseline conditions in State surface waters; develop reliable, risk-based water quality standards and improve methods of water quality monitoring; prepare and revise a State Water Quality Management Plan in cooperation with the State Commission on Water Resources Management; and revise the Clean Water Act 303(d) list of impaired waters.
- ✧ Develop reliable biological and land use assessments for use in preparing Total Maximum Daily Load (TMDL) estimates on a watershed basis. Develop procedures for conducting biological assessments for streams that are coordinated with Department of Land and Natural Resources staff with responsibilities for the management of aquatic resources. Computations of the pollutant loading components of TMDLs and preparation of pollution budgets (TMDL reports) for impaired waters on the Clean Water Act 303(d) list of impaired waters are a high priority, and required by the EPA.
- ✧ Coordinate development of a relational database for EHA programs that will support agency and public access to non-confidential permit and compliance information about facilities holding federal permits, and is compatible with computer networks used for permit tracking in other agencies at the State and county level of government.

Objective F. Outreach

Obtain feedback from DOH stakeholders regarding our environmental management policies; improve communication with agencies that play an important role in the management of Hawaii's environment; and receive technical peer reviews of scientific policies and documents.

Strategy:

- ✧ Establish and provide staff support to an external public advisory committee called the Environmental Management Advisory Group (EMAG) and, as needed, technical review groups called TAGs. Hold at least quarterly meetings of EMAG. Plan and setup EMAG and TAG committee and subcommittee meetings; provide staff support to the EMAG and the TAGs;

coordinate communications among the EMAG, the TAGs, the DOH and the EPA; provide briefings on EMAG and TAG activities; and develop outreach materials for committee use.
Provide a mechanism for communicating pertinent information about Hawaii's to all concerned residents and businesses.

- ✧ *Organize and establish a Speakers' Bureau comprised of DOH staff and volunteers; provide one or more training workshops for Bureau members; assist in the development of presentation materials; coordinate presentation schedules.*
  Brown-bag lunches are organized to encourage cross communication among EHA staff. Topics vary from technical programmatic issues to those of personal interest. During these "brown bags" staff sharpen their public speaking skills while interacting with their colleagues in a casual lunchtime environment.

Performance Measures

Strategic Planning and Policy

- ✧ Development of a joint DOH/EPA strategic plan and enforcement agreement.

Technical Support / Information Management

- ✧ *Assessments of aquatic communities and habitats in Hawaii's perennial streams as one of several tools for identifying impaired perennial streams, and for developing the Clean Water Act 303(d) List of Water Quality-Limited Segments and TMDLs.
- ✧ Development of updated Water Quality Standards.
- ✧ A new indicator, based on aquatic life use attainment in streams, is under development.

(* This measure has been designated a 'Core Performance Measure' by EPA, and will be tracked by the DOH to report both locally and nationally.)

CLEAN AIR BRANCH

The Clean Air Branch (CAB) has fulfilled its goals and objectives that were set in the January 1999 Strategic Plan. At most times, the state still enjoys the best air quality in the nation. Measurements demonstrate that Hawaii's air quality remain better than that required by federal and state standards for air pollution control.

A network of air analyzers and meteorological equipment installed throughout the state monitors air quality. Air pollution is regulated through rules and air permits.

One of the special projects the department conducted was on the agricultural practice of burning sugar cane before harvesting. Two particulate stations on Maui still monitor ground-level air samples.
Although the Cane Burn Forecasting project has been completed, cane burning continues to be an issue. The department continues to monitor the effectiveness of the burn forecasting, do evaluations and respond to complaints.

The Hawaii Vog Index Hotline continues to be maintained and updated for the benefit of the residents. With regard to the Hawaii Vog Study, a physical and chemical characterization of the vog was completed.

Currently, the Hazard Evaluation and Emergency Response Office is conducting studies on the possible health effects of vog on children.

The air quality in Campbell Industrial Park and its surrounding area continues to be an area of interest for the department, due to the park's proximity to the expanding community of Kapolei, Barber's Point (Kalaeloa), Ko Olina Development and Makakilo. In order to provide a timely response to any air pollution incident and to address community concerns, the department maintains a 24-hour hotline for the industrial park and provides a staff at Kapolei.

To be consistent with the annual report, Indicators of Environmental Quality, this update is reporting data for SO_2 and PM_{10} collected at the Honolulu station, and data for the highest 1-hour average for CO. The data are as follows:

	1995	*1996*	*1997*	*1998*	*1999*
SO_2 (ug/m^3)	*3*	*3*	*2*	*2*	*2*
PM_{10} (ug/m^3)	*14*	*14*	*14*	*9*	*14*

Organizational Structure
There are no changes to the organizational make up of the CAB since the 1999 strategic plan. The main implementation sections are: Engineering, Monitoring, and Enforcement.

Goal
To protect and enhance Hawaii's air quality for the health of the people.

Prioritized Objectives & Strategies
Objective A. Establish ambient monitoring stations and conduct special ambient studies where applicable to describe ambient air quality throughout the state. Continue to monitor the ambient air quality and compare the results to the existing standards.

Strategy:

- ✧ Establish monitoring stations on all major islands of the state. On an annual basis, evaluate the performance of the individual monitoring stations and determine whether the objectives have been achieved, whether the data is valid, and whether the stations should be redefined or relocated. Continue to upgrade and maximize the efficiency of the monitoring stations. Identify special monitoring programs and obtain funding. Depending on the availability of resources, conduct air monitoring in those areas of concern or of special interest, such as ambient air quality impacts from the volcanic emissions and sugarcane burning on Maui.

Objective B. Maintain an effective inspection, compliance, and enforcement program for stationary sources, agricultural burning activities, and miscellaneous fugitive emission-causing activities, and adequately track and take appropriate enforcement actions.

Strategy:

- ✧ Inspect stationary sources and agricultural burning activities for compliance with permit conditions and applicable federal and state laws, rules, and standards. Investigate public complaints and inquiries and respond accordingly. For violations, proceed with timely and appropriate enforcement actions. Maintain effective internal tracking procedures.

Objective C. Closely monitor air sources. Obtain, compile, and review for accuracy air emissions data from air sources.

Strategy:

- ✧ Ensure that stack testing is performed, continuous operational and emissions monitoring are maintained, and data reported, as appropriate. Maintain an accurate emissions inventory. Evaluate, compile, and input the emissions data into an appropriate database.

Objective D. Enhance the efficiency of the air permitting process.

Strategy:

- ✧ Review the permitting procedures and improve the efficiency as appropriate. Continue to strive towards simplifying the permit process without compromising its regulatory effectiveness. Provide the technical staff with adequate training on the federal requirements and regulatory changes.

Performance Measures

A. Establish ambient monitoring stations and conducts special ambient studies where applicable to determine the ambient air quality throughout the state. Continue to monitor the ambient air quality and compare the results to the existing standards.

Performance Measures:

- ✧ *Trends in air quality for each of the 6 criteria air pollutants.
- ✧ *Trends in emissions of toxic air pollutants, and annual levels of air toxics in Hawaii as reported in the U.S. EPA Toxic Release Inventory.
- ✧ Number of ambient air quality monitoring stations in the statewide network.
- ✧ Comparison of Hawaii's data for sulfur dioxide, particulate matter, and carbon monoxide to the National Ambient Air Quality Standards.

(* These measures have been designated 'Core Performance Measures' by EPA, and will be tracked by the DOH to report both locally and nationally.)

B. Maintain an effective inspection, compliance, and enforcement program for stationary sources, agricultural burning activities, and miscellaneous fugitive emission-causing activities, and adequately take and track appropriate enforcement actions.

Performance Measures:

- ✧ Number of complaints on stationary sources received/responded.
- ✧ Number of complaints on open burning received/responded.
- ✧ Number of complaints associated with fugitive dust, odors, and miscellaneous activities received/responded.
- ✧ Number of inspections of stationary sources.
- ✧ Number of inspections of agricultural burning sources.
- ✧ Number of notices of violations issued.

C. Closely monitor the air sources. Obtain, compile, and review for accuracy air emissions data from air sources.

Performance Measures:

- ✧ Number of stationary sources submitting data on continuous emission monitoring, operating parameters, and fuel specification and usage.

- ✧ Number of source performance tests conducted on stationary sources.

D. Enhance the efficiency of the air permitting process.
Performance Measures:
- ✧ Number of complete stationary source permit applications received.
- ✧ Number of stationary source permits issued.
- ✧ Number of complete agricultural burning permit applications received.
- ✧ Number of agricultural burning permits issued.

SOLID and HAZARDOUS WASTE BRANCH

The Solid and Hazardous Waste Branch (SHWB) ensures the proper management and disposal of all solid waste and hazardous material in the State of Hawaii. This includes developing rules and regulations for landfills, solid waste incinerators, transfer stations, recycling and composting facilities, and illegal dumping. SHWB consists of three implementing sections, one support group and Program Administration. The support group is designed to provide administrative and technical support to the implementing sections. The implementing sections consist of the Office of Solid Waste Management, Underground Storage Tank Section, and the Hazardous Waste Program.

Regulatory Implementation of Rules

Solid Waste Program

The solid waste program is functionally the oldest of the environmental management activities within the Solid and Hazardous Waste Branch (circa 1969). In the early 1970s, the primary regulatory control was related to sanitation issues such as odor and vector control, windblown debris and uncontrolled burning. At that time, Title 11, Chapter 46 of the Hawaii Administrative Rules (HAR) was the regulatory authority (effective 7/30/74). During this initial regulatory period, open dumps and burn landfilling practices were phased out and sanitary landfilling practices were put in place.

The passage of Hawaii Revised Statutes (HRS) *Chapter* 342, Environmental Quality, in 1980, provided a more comprehensive revised rule, Title 11, Chapter 58 HAR, and was promulgated in November 1981, by the *Environmental Permits Branch*. Although the regulatory requirements relating to solid waste management and disposal were significantly expanded, program resources were still limited to a single engineer and solid waste facilities received only minimal oversight.

In 1989, the legislature divided HRS *Chapter* 342 into media specific statutes, placing Solid Waste Pollution regulations under HRS *Chapter* 342H, creating the Used Oil Recycling program under HRS *Chapter* 342N, and establishing Lead Acid Battery Recycling under the HRS Chapter 342I. Over the next two years the program worked closely with industry to ensure that commercially generated used oil was recovered and to initiate residential oil recovery efforts. In 1991, the Office of Solid Waste Management (OSWM) was established by Act 324 and codified in HRS. *At that time, the program developed the first State Integrated Solid Waste Management Plan. Efforts were also made to ensure that* landfill owner/operators understood upcoming federal regulations (40 CRS 258) based on the federal Resource Conservation and Recovery Act (RCRA).

In 1992, the state statutes were amended to comply with federal statutes. The OSWM focused efforts on the renewal of landfill permits, expansion of outreach and education programs, and funding of county oil recovery programs. Key legislation included the establishment of a solid waste tipping fee surcharge and tire recycling.

Key legislation in 1994 established a Glass Advance Disposal Fee (ADF) and the Clean Hawaii Center. *The year 1994 also saw the revision of the solid waste program's administrative rules, as HAR Chapter 58 was repealed and replaced by Chapter 58.1. The new regulations expanded beyond the previous focus on landfills and transfer stations to specifically address the wider range of solid waste management facilities under the regulatory purview of the solid waste program. A considerable portion of Chapter 58.1 also incorporates federal RCRA Subtitle D landfill requirements. Since 1994, the number of permitted solid waste facilities has increased because of an increase in waste diversion and recycling activities requiring more technical and regulatory oversight by the OSWM.*

In 1996, Chapter 342N was repealed and the Used Oil components were transferred to jurisdiction of the Hazardous Waste program under HRS Chapter 342J. This was done to keep the organization of state laws regarding used oil regulation in line with that of federal law.

In 2000, the legislature implemented a motor vehicle tire surcharge program that the OSWM currently operates. The funds collected through this program will be used for the cleanup of existing improper tire disposal sites.

Hazardous Waste
The Hazardous Waste Program promulgated state rules on July 18, 1994. The process of revising the rules in order to adopt new federal regulations is still ongoing.

Underground Storage Tank/Leaking Underground Storage Tank
The State's UST regulations went into effect on January 28, 2000 under the Hawaii Administrative Rules, Title 11, Chapter 281. On May 23, 2001, the department applied to U.S. EPA for approval of Hawaii's underground storage tank program in lieu of the federal regulations.

Prioritized Objectives & Strategies
Reduce the generation of waste.
Objective A. By 2005, increase recycling and decrease the quantity of waste generated.

1. *Reduce* the generation of municipal solid waste (inc. commercial, special, industrial, etc.) in Hawaii to 1.4 million tons per year (10% reduction from 1995 baseline).
   Strategies:
   - ✧ Increase awareness of "Full Costs" of waste management, and promote the development of 'pay-as-you-throw' programs for residential collection.
   - ✧ Support national efforts towards reduction in both wholesale and retail packaging.

2. *Reduce the solid waste stream by 50% before disposal through source reduction, reuse, recycling, composting, and other means.*
   Strategies:
   - ✧ Implement bans on the disposal of commercial cardboard, office paper, newspaper and glass.

- ✧ Provide: (a) technical assistance to the Counties in implementing their Waste Diversion Plans; (b) financial incentives (avoided cost payments) to materials processors (i.e., glass container program); (c) technical assistance for local market development; (d) for the necessary investment in infrastructure by promoting the development of "recycle parks" on state or county lands; and (e) planning assistance to commercial generators in developing and implementing waste minimization and recycling activities.
- ✧ Increase: (a) awareness of "Full Costs" of waste management, and promote the development of 'pay-as-you-throw' programs for residential collection, and (b) outreach and education efforts to general public and commercial sector.
- ✧ Expand the number and capacity of *recycling* facilities in Hawaii.
- ✧ Promote the use of local*ly produced recycled content products* in state and county projects.

Objective B. By 2005, reduce by 25% (base year 1995) the quantity of toxic pollutants released, disposed of, treated, or combusted for energy recovery.

Strategies:

- ✧ Provide education and outreach to promote materials substitution, more prudent use of hazardous materials, alternative technologies and recycling. Encourage facilities to maintain smaller stockpiles of hazardous materials.
- ✧ Continue with Pollution Preventions/Waste Minimization outreach education.
- ✧ Conduct streamlined inspections and technical/educational assistance.
- ✧ Work with the regulated and non-regulated community to insure that appropriate methods to prevent releases (i.e. weekly inspections of waste drums and safety training for personnel are being met).
- ✧ Develop a small business assistance program.

Achieve Better Waste Management and Restore Contaminated Sites.

Objective A. By 2005, reduce or control the risks to human health and the environment at contaminated sites.

1. Reduce the number of "open dumps" by 50%.

   Strategies:

   - ✧ Increase: (a) enforcement efforts focusing on illegal dumping and the operation of "open dumps"; (b) and public awareness of the environmental impacts of open dumps.
   - ✧ Educate contractors and haulers of environmental liabilities and penalties.
   - ✧ Provide technical assistance, training and financial incentives promoting C&D recycling.

2. Clean-up of highest risk contaminated sites.

   Strategies:

   - ✧ Develop *priorities* which will facilitate the allocation of resources and enforcement decisions.
   - ✧ Conduct site inspections to ensure that sites are properly evaluated.
   - ✧ Encourage more voluntary cleanup and partnerships between the SHWB programs and the regulated facilities.

Objective B. By 2005, 90% of all solid waste facilities will be managed according to practices that prevent dangerous releases to the environment.

Strategies:

- ✧ Develop operational guidelines and best management practices for solid waste facilities.
- ✧ Expand the permit by rule program.
- ✧ Conduct: (a) timely review of permit applications and operational plans; and (b) routine evaluation of operational plans.

Develop Sensible Policies and Implementation plan, based on sound scientific principles.

Objective A. Develop internal policies and procedures to improve program-operating efficiencies.

Strategies:

- ✧ Conduct annual review of program needs.
- ✧ Develop Environmental Health Administration work groups to ensure program consistency.

Objective B. Provide technical guidance and oversight to regulated community involved in the cleanup of sites and waste management.

Strategies:

- ✧ Use the expertise of the regulated community and consultants to develop needed technical assistance, educational and outreach programs.
- ✧ Develop clear, concise technical guidance documents relating to cleanup standards and disposal of special wastes (i.e. fluorescent light bulbs, low level PCS and PCB contaminated soil).
- ✧ Conduct annual reviews of guidance documents and assess need of the regulated community.

Ensure Compliance with Laws to Protect Public Health and the Environment.

Objective A. By 2005, ensure full compliance with laws intended to protect human health and the environment.

Strategies:

- ✧ Expand and expedite enforcement actions.
- ✧ Work towards State Program Approval of the UST program.
- ✧ Provide technical guidance and oversight to regulated community, including those involved in the cleanup of release sites.
- ✧ Maintain an effective compliance/monitoring program through increased field presence.
- ✧ Develop streamlined inspection procedures.
- ✧ Work towards full delegation of the Hazardous Waste Program.
- ✧ Enforce cleanup requirements for hazardous waste facilities undergoing closures and corrective action.
- ✧ Increase enforcement efforts focusing on illegal dumping and the operation of "open dumps".
- ✧ Develop simple, straightforward field citation rules for the UST and various Solid Waste programs.

Objective B. By 2005, bring all municipal solid waste (MSW) landfills into full compliance with State and Federal regulations.

Strategies:

- ✧ Increase owner (county) awareness of operational requirements and budgetary needs.
- ✧ Provide: (a) technical assistance to owners and operators relating to new regulations (i.e., financial assurance, gas management, alternative groundwater monitoring); and (b) landfill operators' training and mandate operator certification as an element in the landfill permit.
- ✧ Expand and expedite enforcement actions for operational violations.

Performance Measures

Prevent the generation of waste.

Performance Measures:

- ✧ Solid waste recycled as a percentage of total solid waste generated.
- ✧ Quantity of hazardous waste generated.
- ✧ Reduction of solid waste landfilled and incinerated.
- ✧ Per capita generation of municipal solid waste.

Achieve Better Waste Management and Restore Contaminated Sites.

Performance Measures:

- ✧ Number of illegal landfills/dumps closed.
- ✧ Number of RCRA Subtitle C clean closed.
- ✧ Number of leaking UST sites receiving notices of "no further action."
- ✧ Number of *unpermitted* solid waste facilities.

Develop Sensible Policies and Implementation Plan, based on sound scientific principles.

Performance Measures:

- ✧ Number of streamlined procedures.
- ✧ Number of technical guidances/policies.

Ensure Compliance with Law's to Protect Public Health and the Environment.

Performance Measures:

- ✧ Number of RCRA Subtitle C facilities in compliance.
- ✧ *Number of USTs equipped to meet leak detection and upgrade requirements.

(* These measures have been designated 'Core Performance Measures' by EPA, and will be tracked by DOH to report both locally and nationally.)

HAZARDOUS EVALUATION and EMERGENCY RESPONSE OFFICE

There have been some minor changes to Hazardous Evaluation and Emergency Response (HEER) Office operations since the 1999 strategic plan. The HEER Office addresses all aspects of releases of hazardous substances into the state's environment. HEER Office responsibilities include preventing, planning for, responding to, eliminating, and enforcing environmental laws related to hazardous substance releases or risks of release. These responsibilities are accomplished through addressing the highest risk to human health and the environment first, preventing contamination instead of cleaning up after the fact, basing decisions on sound scientific principles and common sense, cooperative partnerships and valuing employees.

The initial responders to all major incidences of chemical or oil releases into the environment are the HEER On-Scene Coordinators (OSCs) who are available around the clock. The OSCs work closely with other emergency responders, public and private, when handling emergencies. They work to contain and minimize the impact to human health and the environment from emergency releases. They also coordinate and direct necessary short-term response efforts.

Department of Defense/State Memorandum of Agreement
This 1992 agreement provides reimbursement to DOH for costs incurred when the state provides a viable oversight program of the environmental investigative and cleanup activities conducted by the military services at the their installations in the state.

Federal Superfund Activity in Hawaii
The 1999 strategic plan listed four sites that were high on the National Priority List (NPL). *In August 2000, Schofield Barracks, which was one of the four sites, was removed from the NPL.*

State Superfund Activity – Honolulu Harbor Project
Various petroleum products have been released in portions of the Honolulu Harbor area of Oahu. DOH has designated the Iwilei section of Honolulu Harbor as an area for further investigation and if appropriate, will respond to these petroleum releases under the Hawaii Environmental Response Law, Chapter 128D, Hawaii Revised Statutes. The site designated by DOH is bounded by Honolulu Harbor to the south, Kapalama Canal to the west, Dillingham Boulevard and North King Street to the north, and Nuuanu Stream to the east. This area has historically been used for railroading, pineapple processing/canning, bulk fuel storage, petroleum processing, shipping, warehousing, and chemical storage.

In early 1995, DOH issued a series of Information Requests and notice letters regarding potential liability under the Hawaii Environmental Response Law to the State Department or Transportation-Harbor Division, and all companies or entities, which had or were operating facilities within the site. Six of the Potentially Responsible Parties (PRPs) identified in 1995 volunteered to advance the funds to perform the initial remedial measures at the site. These six PRPs formed the initial Honolulu Harbor Working Group to complete tasks outlined in a voluntary agreement in January 1998. These tasks included the completion of a Phase I Environmental Site Assessment and a Conceptual Site Model to address potential petroleum contamination at the site. These tasks were completed in 2000 and the terms of the 1998 voluntary agreement were met.

With the assistance of existing PRPs, DOH has continued to gather information to identify additional companies to receive notice letters as PRPs, particularly previous owners and operators of facilities within the site and additional current owners and operator of such facilities. In October 1999, these additional PRPs were notified of their potential involvement with the project. These PRPs have voluntarily decided to participate in the response actions at the site and join the Honolulu Harbor Working Group.

The DOH and expanded HHWG (now referred to as the Honolulu Harbor Participating Parties) have entered into a follow-on Environmental Response Working Agreement to continue the response action at the site. The overall goal of the agreement is to develop and implement a comprehensive strategy to solve past, present, and future environmental contamination problems in the Honolulu Harbor area. The desired endpoints to achieve include overall compliance, future prevention and cleanup of petroleum releases.

Remediation/Cost Recovery
Cost recovery by responsible parties is included as part of *agreements between the DOH and potentially responsible parties.*

Natural Resource Damage Assessment
An Ecological Risk Assessor position was authorized in 1999 to assist in assisting natural resource damages from chemical and oil spills.

Brownfields and **Voluntary Response Program**
"Brownfields" is a term developed by the EPA to describe abandoned, idled or underused industrial, commercial and other properties where redevelopment is complicated by real or perceived contamination. Nationally, the Brownfields program started in 1994.

Hawaii began participating in 1997 with the adoption of the Voluntary Response Program (VRP). The VRP allows prospective purchasers and/or developers of properties to undergo a voluntary cleanup project in return for exemption from future liability related to the contaminants cleaned up. Participants pay for DOH oversight and monitoring of their work.

Since 1999, Hawaii has begun a more aggressive Brownfields initiative with EPA Region IX as a partner. Brownfields targeted site assessments have been conducted at more than six key sites and the Department of Business, Economic Development and Tourism (DBEDT), with the DOH's assistance, received a Brownfields Pilot Assessment grant from EPA to develop a statewide inventory of developable to brownfields sites owned by the state, counties, and/or community development agencies. Workshops are being held to educate landowners, consultants, attorneys, and property owners.

Risk Assessment Management / Hazard Evaluation
In the 1999 strategic plan, health risks had been assessed by contract and staff epidemiologists, and also by a contract toxicologist. *At this time, there are two toxicologist, two epidemiologist, and one ecological risk assessor positions (note – 2 of 5 positions have been vacant since being created).*

Administrative
Maintaining qualified staff
The HEER Office will continue to invest heavily in training staff to *maintain technical competence.* We expect a *5 to 10* percent increase in staffing within the next year and *about a 15 to 20 percent turnover in future* years. It is possible that, during the next three years, nearly *30* percent of the staff will be new and will have less than 4 years of experience. In addition, we will maintain *toxicologists and an ecological risk assessor* on staff to identify and evaluate risks to human health and the environment.

Ensuring adequate funding
The primary funding challenge *will be to increase the tax collected* for the Environmental Response Revolving Fund (ERRF). *Additional ERRF funds will be needed to sustain program capacities.*

Prioritized Objectives & Strategies
Objective A. Be constantly prepared, utilizing risk based management principles, to respond in a timely and effective manner to releases of hazardous substances and oil into the environment.

Since the HEER Office began tracking hazardous substance release notifications, it has processed *nearly 6,000* notifications. During the last *fiscal* year, the office received *474* notifications and, although most of the notifications are for small and relatively non-threatening releases, approximately *17* percent require the office to conduct some type of response action.

A response action can be a simple visual inspection, or they can require extensive emergency and long-term remediation. Due to the large number of notifications and responses it is difficult to adequately address all notifications.

To meet the program's objective, it is necessary to streamline the existing response process and use program resources more efficiently. Program resources can be maximized by avoiding duplication and integrating staff with similar programs, both internal and external to the DOH. In addition, providing adequate staff training will facilitate quicker and better decisions. We must also try to strengthen outside organizations which share similar responsibilities in order to ensure protection of the entire state.

1. Improve the preparedness of federal, state and local entities to respond to releases of petroleum and hazardous materials into the environment, utilizing risk-based management principles and effective partnerships.
   Strategies:
   The HEER Office is vested with the mandate to provide statewide leadership in preparing for and responding to hazardous substance releases. The DOH deputy director for environmental health chairs the State Emergency Response Commission (SERC) and the HEER Office supports the SERC. The HEER Office must lead the way in the assessment of response capabilities and the initiation of solutions to statewide problems. In so doing, the HEER Office must utilize risk based management principles for prioritizing incidences, and must employ effective partnerships when feasible to maximize available resources. Specific strategies to accomplish this objective are:
   - ✧ Develop partnership memorandum of agreements (MOAs) with the federal, state, and county response organizations to clearly identify roles and responsibilities in the event of an oil or hazardous substance release.
   - ✧ Build effective partnerships with all stakeholders.
   - ✧ Implement an effective *and adequate* means of funding the Local Emergency Planning Commissions (LEPCs).
   - ✧ Provide assistance such that the LEPCs and State Emergency Response Commission (SERC) hold productive meetings and generate effective state and local emergency response plans and actions.
   - ✧ Focus the SERC on the most important statewide issues through their better understanding of risk-based management principles.
   - ✧ Initiate the development of SERC subcommittees to formalize statewide response policy.
   - ✧ Assess response capabilities and ensure that the state is prepared to respond to, and mitigate releases of hazardous substances by participating in the practice of all federal, state and local hazardous materials response plans (e.g. Federal Response Plan for Hazardous Substance Materials Releases During Natural Disasters, State Civil Defense hazardous material response training, etc.). Also assist in the periodic amendment of the plans.
   - ✧ Participate in oil spill *and other preparedness* exercises.

2. Integrate the DOH's response and cleanup programs utilizing risk-based management principles and effective partnerships.

Strategies:

The HEER Office's emergency response and enforcement functions have evolved at different paces over the past twelve years. Integrating these functions in the HEER Office to create a seamless response program is a priority. In addition, related activities of the Solid and Hazardous Waste Branch (SHWB), including the Office of Solid Waste Management (OSWM), with the activities of the HEER Office will also establish a more effective and efficient environmental clean up program in the DOH. Specific strategies to accomplish this objective are:

- ✧ Develop a HEER working group responsible for instituting a seamless response program in the HEER Office. The working group should be empowered to recommend changes in specific functional areas in order to create consistency among emergency response, site identification, site assessment, site investigation, remedial investigation, remediation actions, and hazard evaluation and risk management.
- ✧ Develop a DOH working group on program consistency. The working group should be empowered to recommend changes in specific programs in order to create consistency among the coordinating programs (i.e., the SHWB programs and the HEER Office).
- ✧ Develop and implement working MOAs between the OSWM, SHWB and HEER where there is duplicate authorities or responsibilities in order to eliminate program overlap.
- ✧ Increase open and honest communication within the *office and* the department.
- ✧ Share resources in an effort to be more efficient and to demonstrate a "team concept."

3. Enhance and improve capabilities to identify and assess hazardous substance and petroleum contaminated sites.

Strategies:

The HEER Office now has the resources to conduct both long-term and emergency response activities. Previously, the program was staffed with only On-Scene Coordinators for conducting emergency response. As such, remedial sites were addressed in an informal manner. Both emergency response and remedial response sections are developing more formalized approaches to identifying, assessing and remediating sites through clear policy and technical guidance. This approach should result in more consistent implementation and legally defensible decisions. In addition, *all* program relationships with potentially responsible parties need to be formalized in writing. All site visits, conversations, meetings or other contacts where site-specific information is discussed should be *adequately* documented. We also will formalize our internal system for collecting and processing new sites. The following are specific strategies:

- ✧ Develop an annual strategic site discovery plan.
- ✧ Enhance the notification and initial assessment phases of site discovery.
- ✧ Look for administrative and legal amendments to current policy and laws in order to streamline the remediation process.
- ✧ Provide outreach to local consultants on methods of investigation and remediation.
- ✧ Enhance our data and file management system.
- ✧ Work with the military to address the worst sites on military land.
- ✧ Identify and respond to the 10 worst, non-military sites in Hawaii.
- ✧ Assess all potential and actual contamination of potable groundwater and pursue appropriate response action.
- ✧ In cases of petroleum product release, conduct rapid removal of the free product to prevent further contamination of land.
- ✧ Document all site visits and response actions.

- ✧ Implement the Brownfields Targeted Site Assessment Program and the Brownfields Economic Development Initiative Program.

4. Enhance and improve capabilities to clean up *and close* hazardous and petroleum waste sites.
   Strategies:
   The HEER Office capabilities have been hindered by a lack of personnel resources and limited expertise in technical matters. To address this shortfall, increased training and training plans have been developed for each staff member. In addition, outside contracts have been established to fill technical deficiencies. These two strategies should establish technical expertise within the program. Other capabilities needing to be addressed are: administrative, enforcement, contractual agreements for all of the long-term sites being overseen; and implementing the Voluntary Response Program. The following are specific strategies:
   - ✧ Identify legislative changes.
   - ✧ Develop minimum staff training requirements based upon position type.
   - ✧ Train staff to increase competency in their duties and to expand integrated cross training.
   - ✧ Develop contracts to provide technical assistance.
   - ✧ Develop enforcement capabilities.
   - ✧ Enter into formal agreements for all non-emergency sites.
   - ✧ Implement the Voluntary Response Program (VRP).

Objective B. Prevent harmful releases of oil and hazardous substances into the environment. Preventing releases is always preferable to addressing releases once they have occurred. This is especially true in Hawaii with regard to oceanic oil releases since a UH report has estimated that a catastrophic oil release could cost the state approximately $7.6 billion. Therefore, an oceanic oil release prevention program must be instituted as soon as possible.

In addition, the HEER Office recognizes that prevention programs for hazardous substance releases are limited and that it should take the lead in this area.

1. Implement an oil spill prevention program in Hawaii.
   Strategies:
   The strategy for this objective is to implement the appropriate recommendations from the UH report and to implement an oil spill prevention program similar to the non-regulatory portion of EPA Region IX's Oil Pollution Prevention Program. Funds have been budgeted from the Emergency Response Revolving Fund to accomplish this task. The following are specific strategies:
   - ✧ Implement appropriate recommendations of the UH "Oil Preparedness and Prevention" study.
   - ✧ Implement an oil spill prevention program which will assist in gathering information and to help foster partnerships with industry in improving hazardous substance management practices.

2. Implement a Pipeline Safety Program.
   Strategies:
   The Hawaii State Legislature passed a bill authorizing the DOH to implement a Pipeline Safety Program. This program was the result of the 1996 Chevron fuel oil spill near the Hawaiian Electric Company's Waiau Power Plant. The oil spill entered Pearl Harbor, causing extensive and costly cleanup activities. In an effort to prevent future spills, the program will look into ways of preventing such spills from reoccurring.

- ✧ Implement appropriate measures as recommended by the Pipeline Safety committee.
- ✧ Locate and map all working pipelines.
- ✧ Develop and implement pipeline inspection and testing procedures.

3. Implement a Clean Air Act (CAA) Section 112(r) Risk Management Program.
   Strategies:
   The HEER Office plans to implement the CAA 112(r), Risk Management Program (RMP). The program is intended to prevent accidental releases of chemicals posing great threat to human health and the environment and to communicate chemical information to the public. *One position has been* funded by the 105 Air Grant and the Title V Covered Sources Fund. The following are specific strategies:
   - ✧ Determine if legislative and regulatory authorities are needed.
   - ✧ Work with EPA to prepare necessary notification information and documents.
   - ✧ Notify the affected businesses of their requirements.
   - ✧ Work closely with the Small Business Advocate.
   - ✧ Communicate the chemical information to the public.

4. Implement an EPCRA Inspection Program.
   Strategies:
   The HEER Office intends to eventually implement the Chapter 128E, Hawaii Emergency Planning and Community Right to Know Act (EPCRA) inspection program.

   Prior to the promulgation of rules, the HEER Office plans to participate with EPA in EPCRA compliance visits to such sites as food manufacturer companies to determine compliance with Chapter 128E, HRS. The following are specific strategies:
   - ✧ Develop administrative rules for 128E, Hawaii Emergency Planning and Community Right-to-Know Act.
   - ✧ Participate in EPCRA compliance visits with EPA to determine compliance with Chapter 128E, HRS.

Objective C. Serve and provide the DOH with technical expertise in assessing the risk of poisons and pathogens to human health. Also assist the department in communicating these risks to its programs and the general public. Maintain an ongoing core of qualified environmental technical experts.

The state and department are addressing and responding to environmental contaminations with limited resources. It is imperative that these resources be applied effectively to the highest risks to human health and the environment. Risk-based management principles have been identified in these plans as the basis for guiding these decisions. Maintaining a solid core of environmental technical experts to assess and advise the environmental programs on risks is a priority.

Strategy:

- ✧ Replace any vacancies in the toxicology, *ecological risk*, or epidemiology positions quickly; provide adequate training on new technology; and seek additional positions, as necessary to support the programs of the department and the general public. In addition, if other environmental technical expertise is needed, the department should contract for such expertise.

Performance Measures

A. Be constantly prepared, utilizing risk based management principles, to respond in a timely and effective manner to releases of hazardous substances and oil into the environment.
   Performance Measures:
   1. *Number of high priority facilities which have human exposure controlled.
   2. *Number of high priority facilities which have groundwater releases controlled.
   3. *Number of Superfund cleanups initiated and/or completed.
   4. Remediation or improvement in the condition of the top 10 "worst" State and federal sites in Hawaii.
   5. Reduction in the number of older remediation sites on the backlog list (i.e. the sites being actively worked on will be new spills and releases and only a few or none with old releases). The backlog of sites will be eliminated from the State's site list by enforcement actions or through the VRP. Another similar indicator is the number of sites remediated and removed from the State's site list.
   6. Reduction in the damage (public health, ecological, and economic) caused by a release, and the cost of responding to a release due to quick and efficient response actions.
   7. Overall effective use of DOH environmental resources to high priority risk responses based upon risk-based management principles.

      (* These measures have been designated 'Core Performance Measures' by EPA, and will be tracked by DOH to report both locally and nationally.)

B. Prevent harmful releases of oil and hazardous substances into the environment.
   Performance Measure:
   1. Documented results from pollution prevention programs instituted by the partnership of the hazardous substance and oil community.

The State's hazardous evaluation and emergency response capacity has evolved considerably in the last *fourteen years.* Today, the HEER Office has a capable team of trained evaluators and responders who are continuously dealing with chemical and oil releases in the environment. In addition, it has developed the capacity to work towards a systematic cleanup of new and past releases. The one final component of the HEER program is to develop and implement a meaningful pollution prevention program which will minimize any ill effects to the people of Hawaii and our magnificent environment. Let us all work together towards these ends.

SAFE DRINKING WATER BRANCH

The protection of a potable water supply for public consumption is essential to the protection of public health and the primary function of the Safe Drinking Water Branch (SDWB). In the 1999 strategic plan, this involved certain activities – the protection of groundwater to analyzing drinking water for contaminants, requiring effective drinking water treatment, protecting water systems from backflow, and insuring the use of approved piping and faucet materials, certifying operators of treatment plants and distribution systems, and issuing loans for public water system infrastructure improvement.

Federal Laws and Regulations

The 1999 strategic plan had a detailed history and list of the authorities under which the SDWB operates. Basically, SWDB operates under the 1974 Safe Drinking Water Act (SDWA). The Act established authority for states to develop an Underground Injection Control (UIC) program to protect Underground sources of drinking water from contamination from waste disposal wells. Hawaii currently has *131* public water systems. *The SDWA has since been amended in 1986 and again in 1996.*

The 1986 SDWA Amendments set forth requirements to increase the number of contaminants regulated in public water systems as well as increasing requirements for the frequency and number of samples to be taken. As a result of the 1986 Amendments, the EPA promulgated the following rules:

- Lead Ban Requirements
- Fluoride Rule
- Public Notification Rule
- Phase I Volatile Organic Chemical Rule
- Total Coliform Rule
- Surface Water Treatment Rule
- Phase II Synthetic Organic/Inorganic Chemical Rule
- Lead and Copper Rule
- Phase V Synthetic Organic/Inorganic Chemical Rule

Under these new rules, water systems were required to meet standards (either maximum contaminant level or treatment) for a total of 86 contaminants.

The 1996 Amendments called for EPA to issue additional regulations and guidelines. EPA has encountered some delays in the promulgation of regulations. Since 1996, EPA has promulgated or intends to promulgate rules in the following areas:

Safe Drinking Water Act Amendments (SDWAA) Rules and Regulations since 1996:

- *Consumer Confidence Reports (promulgated August 1998)*
- *Revisions to the Variances and Exemptions Rule (promulgated August 1998)*
- *Stage 1 Disinfectants/Disinfection By-Products Rule (promulgated December 1998)*
- *Interim Enhanced Surface Water Treatment Rule (promulgated December 1998)*
- *Lead and Copper Rule Minor Revisions (promulgated January 2000)*
- *Revised Public Notification Rule (promulgated May 2000)*
- *Unregulated Contaminant Monitoring Rule (promulgated September 2000)*
- *Radionuclide Rule (promulgated December 2000)*
- *Filter Backwash Recycling Rule (promulgated June 2001)*
- *Arsenic Rule (promulgated January 2001, retracted until February 2002)*
- *Groundwater Rule (expected promulgation November 2001)*
- *Long Term 1 Enhanced Surface Water Treatment Rule (expected late 2001)*
- *Radon Rule (expected late 2001)*
- *Long Term 2 Enhanced Surface Water Treatment Rule (promulgation 2002)*
- *Stage 2 Disinfectants/Disinfection By-Products Rule (promulgation 2002)*

The presence of lead in drinking water was one of the main concerns covered extensively in the 1999 strategic plan. The level of lead in Hawaii's drinking water is well below the national PHS standard of 50 micrograms per liter (ug/l) or parts per billion (ppb), established by the Safe Drinking Water Act of 1974. The 1999 plan also identified the fact that lead does not occur in sources of drinking water in Hawaii, but in the piping materials.

Act 218 of the 1997 Legislature provided for a program of subsidized lead and copper testing for owners and users of rainwater catchment systems. The purpose of Act 218 was to provide some form of assistance to the estimated 10,000 – 15,000 individual rain-water catchment systems which are not covered by public water system regulations. Under this program, the owner or user of a rainwater catchment system pays shipping and the first $25 of the analytical costs. Act 218 provides funding for the Department of Health to pay the remaining analytical costs. Funding for this program has been continued. The SDWB is also looking for means of providing technical assistance to owners and users of rainwater catchment systems which was also provided for by Act 218.

Act 81 of the 2001 Legislature extended the ban on leaded products used in drinking water systems to include plumbing fittings or fixtures by allowing only those products which meet standards for product leachability to be installed in drinking water systems.

The Safe Drinking Water Act of 1974 also included provisions for a complementary program known as Underground Injection Control. Through this program, a state would first identify areas of existing and potential drinking water and then control, through a permit process, waste disposal through underground injection wells. In Hawaii, this program was developed by the Environmental Planning Office which began work in 1978 with the formation of statewide steering committees to assist in the identification of areas of existing and potential drinking water sources. The program was then passed on to the Pollution Technical Review Branch in the early 1980's and then to the Drinking Water Section which later became the Safe Drinking Water Branch in 1989.

Primary Enforcement Authority

Primary Enforcement Authority (primacy) is authority delegated to the State by the U.S. Environmental Protection Agency. Primacy is delegated to a state when it can demonstrate that it has the statutory authority and the resources to conduct a safe drinking water program which meets EPA requirements. Primacy is important to Hawaii because it has both public health protection and funding benefits.

Primacy's public health benefit is that it allows the State to carry on safe drinking water activities directly. Due to their presence on each major island and knowledge of specific water system conditions, state personnel are capable of providing more services and responding more quickly and more appropriately to a wider range of potential problems than staff under the federal program.

Primacy delegation qualifies the State for receiving federal funds for the Public Water System Supervision Program (PWSSP) Grant. The PWSSP Grant is a direct assistance grant to carry out the Safe Drinking Water Act. Over the past several years, it has provided just over $440,000 annually, supporting six staff members. In addition, primacy qualifies Hawaii to receive federal Drinking Water Capitalization Grant funds, primarily intended for use in a low interest loan program to assist public water systems pay for needed improvements, but also providing some funding for assistance in carrying

out other drinking water initiatives. These initiatives include: Capacity Development, Operator Certification, Small System Technical Assistance, and Source Water Assessment/Protection.

Primacy delegation is required for each new regulation that is promulgated by the Environmental Protection Agency. For each rule, EPA sets forth additional primacy requirements which states must meet in order to continue to qualify. These requirements have grown more detailed and substantial with every new regulation, sometimes calling for programs and authority that EPA itself does not have. A future challenge will be to maintain primacy delegation for all drinking water regulations.

Organizational Structure

The eight sections of SDWB remain the same: Administration, Clerical Support, Engineering, Monitoring, Compliance, Underground Injection Control Program, Operator Certification Program (modified from Water Treatment Plant Operator Certification Program), State Revolving Fund Program, and the Groundwater Protection Program.

A few revisions were made to functions of the Engineering and Operator Certification Program.

One function was added to the 1999 list for the Engineering Section. Namely, to implement the Capacity Development Program calling for the assessment of public water system technical, managerial, and financial capacity.

For the Operator Certification Program, revisions were made to the first and second functions listed in the 1999 strategic plan; (a) administer the operator certification program for the State in accordance with EPA requirements, and (b) receive, screen, and prepare all applications for operator certification Board review.

Resource Planning

Resource planning for the Safe Drinking Water Section, and later Safe Drinking Water Branch has taken many forms over the years. This has been necessary because of the tremendous growth of federal drinking water requirements since 1986. These efforts have included: participation in the legislatively sponsored multi-year Environmental Summit held in the early 1990's, petitions to the U.S. Environmental Protection Agency to increase Hawaii's PWSSP grant allocation, petitions to the Hawaii Congressional Delegation to support additional funding for PWSSP Grants during reauthorization hearing of the Safe Drinking Water Act, legislative proposals for a drinking water fee and special fund, continuous comment to national organizations such as the Association for State Drinking Water Administrators for testimony to EPA and Congress. Although there have been some setbacks such as the proposal for the establishment of a special fund for drinking water, these efforts have generally been successful in meeting the resource needs of the SDWB.

The resource planning effort will be continued this year (2001) through the use of an EPA contractor to: (a) assess the impacts of new and proposed rules on the SDWB; (b) identify existing and potential funding sources and levels; and (c) to establish recommendations for continued adequate funding for the program over the next 10 year period. This work will address the issue of SDWB resources for the foreseeable future.

Mission
The program's mission continues to be the protection of public health by regulating owners and operators of public water systems to assure that safe drinking water is provided to the community.

Aspects of the SDWB mission include:

- Prevention of: (a) groundwater contamination in Hawaii through coordination of activities by all agencies or organizations with groundwater protection responsibilities, and (b) by public involvement.
- Provision of safe drinking water for all the citizens of Hawaii via implementation of a full state program, including: surveillance, monitoring, technical assistance, engineering review, enforcement, *operator certification, capacity development, emergency planning, cross connection control, and system improvement loans.*
- Protection of existing and potential sources of drinking water through administration of the Underground Injection Control Program *and the Source Water Assessment Program.*

Prioritized Objectives & Strategies

Objective A. Administration
Ensure appropriate statutory authority and fiscal resources to assure that the water served by Hawaii's public water systems continue to meet minimum quality standards.

Strategies:

- ✧ Identify funding sources and methods to secure sufficient resources to administer a Safe Drinking Water Program, Underground Injection Control, and Groundwater Protection Program.
- ✧ Establish a fee-for-service means of resource augmentation.
- ✧ Determine level of funding (set asides) available from EPA through the State Revolving Fund (capitalization grant) to develop and administer the Hawaii State Revolving Fund Program and support other needed drinking water activities.
- ✧ Amend regulations as necessary to retain primacy delegation.
- ✧ Maintain current emergency plan for safe drinking water.

Objective B. State Revolving Fund Program
Provide financial assistance in the form of low interest loans to reduce the cost of required treatment to public water systems.

Strategies:

- ✧ Develop: (a) an SRF budget based on available funds which will provide for an effective program, and (b) operational manuals covering the financial and technical review of proposed projects.
- ✧ Assure that the highest priority systems receive SRF funding priority.

Objective C. Capacity Development
Ensure that all new public water systems have the technical, managerial and financial (TMF) resources to enable them to meet safe drinking water requirements.

Strategies:

- ✧ Establishment of rules by which water system capacity (TMF) will be determined.
- ✧ To work with water suppliers to identify TMF resources which may be used.

Objective D. Operator Certification Program
Ensure that all water treatment plants *and distribution systems* in the State are staffed by persons who meet minimum requirements *for their respective positions.*

Strategies:

- ✧ Maintain a sufficient number of certified drinking water treatment plant operators in the State.
- ✧ Conduct operator-training events.
- ✧ Administer testing program to certify qualified applicants.

Objective E. Consumer Confidence Reports

Inform all drinking water consumers about the quality of the water being provided by the water system.

Strategies:

- ✧ Develop guidelines in compliance with EPA requirements for Consumer Confidence Reporting.
- ✧ Advise all public water system owners/operators of requirements.
- ✧ Work with public water suppliers to insure they *provide* the required data.

Objective F. Engineering Section

Review and approve (as appropriate) new sources, treatment facilities and major modifications of public water systems.

Strategies:

- ✧ Assure that all new sources of potable water serving public water systems meet all new drinking water quality requirements and are protected to the extent possible.
- ✧ Assure that all work done to expand the distribution systems and treat drinking water results in the delivery of safe drinking water.
- ✧ Assure that all proposed treatment plants are capable of providing adequate treatment for contaminants needing to be addressed.

Objective G. Compliance Section

Ensure compliance with all safe drinking water regulations by the public water systems in the State.

Strategies:

- ✧ Assure through required testing that all sources serving public water systems meet all drinking water standards.
- ✧ Identify and respond to violations of monitoring requirements or MCLs.
- ✧ Reduce, through technical assistance, the number of MCL violations despite the growing number of regulated contaminants.
- ✧ Provide technical assistance to public water suppliers to promote better understanding of regulatory requirements.
- ✧ Issue formal enforcement orders for corrective actions when necessary.

Objective H. Monitoring Section

Identify, through monitoring, the compliance status of public water systems and manage the data generated by this activity.

Strategies:

- ✧ Assure that water suppliers are conducting monitoring as required under safe drinking water regulations.
- ✧ Review and evaluate results and set new monitoring requirements based on system qualification.

Objective I. Underground Injection Control Program

Administer a permit program for the underground disposal of wastes.

Strategies:

- ✧ Secure primacy for the UIC program.
- ✧ Assure that: a) permit conditions are suitable for the facility requesting review.
- ✧ Assure that injection well effluent discharge standards are protective of underground sources of drinking water.
- ✧ Issue public notifications and conduct hearings for UIC permit applications, and increase public outreach.
- ✧ Increase field inspection time of UIC Geologist staff.
- ✧ Pursue enforcement of violations.
- ✧ Streamline UIC permit process by allowing drywells to be permitted by rule.

Objective J. Groundwater Protection Program
Work with the public, private industry, and governmental agencies to protect Hawaii's groundwater resources.

Strategies:

- ✧ Prevent groundwater contamination through proactive measures such as source water assessments, vulnerability assessments, and wellhead protection measures.
- ✧ Identify groundwater contaminants that might impact existing or potential drinking water sources.
- ✧ Work with Wastewater Reuse personnel to assure that groundwaters are protected.
- ✧ Work with HEER and EPA CERCLA personnel to ensure that groundwater contamination is contained and not allowed to spread into drinking water sources.

Objective K. Backflow & Cross-connection Control
Eliminate connections between drinking water systems and systems containing nonpotable water.

Strategies:

- ✧ Guard against cross-connections in public water systems through participation in training events and investigation of occurrences of backflow.
- ✧ Administer a certification program for backflow prevention devices and testers.

Objective L. Rainwater Catchment Systems
Administer technical assistance program and a monitoring program for lead and copper in homes served by rainwater catchment systems.

Strategies:

- ✧ Develop non-regulatory program for rainwater catchment owners/users.
- ✧ Develop an informational brochure for owners/users of rainwater catchment systems to make them more aware of potential water quality problems.

Objective M. *Technical Assistance and Complaint Response*
The Safe Drinking Water Branch disseminates substantial amounts of technical information and assistance to the public as well as consultants about the quality of their water. Calls for such assistance are received and responded to daily.

Strategies:

- ✧ *Respond to public inquiries concerning to the quality of the water in their homes and/or businesses.*
- ✧ *Conduct site investigations of water quality complaints of schools and other facilities.*
- ✧ *Respond to consultant inquiries for data concerning drinking water quality and protection for specific projects.*

Performance Measures

A. Administration

Performance Measures:

- ✧ Maintain primacy for enforcement of safe drinking water regulations through adoption of state rules.
- ✧ Number of public outreach activities held.
- ✧ Number of national primary regulations not yet adopted.
- ✧ Number of viable funding sources identified.
- ✧ Existence of an up-to-date statewide emergency plan for safe drinking water.

B. State Revolving Fund Program

Performance Measures:

- ✧ Number and value of loans issued or funds committed under the State Revolving Fund to public water system improvement projects.
- ✧ Financial security of the fund.
- ✧ Number of community drinking water systems (and population served) that provide drinking water that meets all standards as a result of implementing the Drinking Water State Revolving Fund (projects and set-aside funds). (EPA Core Performance Outcome)

C. Capacity Development

Performance Measures:

- ✧ Number of new public water systems evaluated for TMF (technical, managerial, and financial resources).
- ✧ Number of new public water systems determined to lack sufficient TMF.
- ✧ Number of public water systems corrected to achieve TMF.

D. Operator Certification Program

Performance Measures:

- ✧ Number operators certified in the current year.
- ✧ Number of operator training courses conducted.
- ✧ Number of applications received for certification of *water treatment plant and distributions system* operators.

E. Consumer Confidence Reports

Performance Measures:

- ✧ Number of water suppliers issuing consumer confidence reports by *July 1, 2002.*
- ✧ Number of Consumer Confidence Reports training sessions held or attended.
- ✧ Number of inquiries related to drinking water quality as the result of the issuance of consumer confidence reports.

F. Engineering Section

Performance Measures:

- ✧ Number of new sources of potable water serving public water systems reviewed and approved.
- ✧ Number of new treatment plants reviewed and approved.
- ✧ Number of public water systems which have not submitted proposals for treatment to reduce lead or copper concentrations in first flush water.

G. Compliance Section

Performance Measures:

- ✧ Percentage of persons served by systems complying with all drinking water standards.
- ✧ Number of persons served by water systems under formal enforcement orders.

H. Monitoring Section

Performance Measures:

- ✧ Number of sanitary surveys conducted in the current year.
- ✧ Number of detections of new chemicals appearing in a water system.

I. Underground Injection Control Program

Performance Measures:

- ✧ Primacy attainment for the UIC Program.
- ✧ Use and number of different classes of UIC permits issued.
- ✧ Contaminations as a direct result of injection well activity.
- ✧ Fines collected from penalties due to noncompliance with permit conditions or regulations.
- ✧ Number of notice of violation orders (NFOVs) and administrative orders issued to non-complying UIC permittees.
- ✧ Percent of UIC staff time spent on field inspections.
- ✧ Revision of current Chapter 11-23, HAR to include drywell permit by rule.

J. Groundwater Protection Program

Performance Measures:

- ✧ Number of sources with delineated source water protection areas.
- ✧ Number of drinking water sources with complete source water assessments.
- ✧ Number of non-drinking water groundwater sources tested.

K. Backflow & Cross-connection Control

Performance Measures:

- ✧ Number of cross-connection incidents identified and corrected in the year.
- ✧ Number of backflow prevention devices.

L. Rainwater Catchment Systems

Performance Measures:

- ✧ Number of responses to questions concerning rainwater catchment systems.
- ✧ Number of tests of rainwater catchment systems for lead and copper.

M. *Technical Assistance and Complaint Response*

- ✧ *Number of inquiry/complaint responses.*
- ✧ *Number of site visits conducted.*
- ✧ *Number of students assisted.*

Future Issues

Minor changes and additions were made to issues identified in the 1999 strategic plan as follows:

8. The training/testing of sufficient numbers of drinking water treatment plant operators to meet the treatment needs of the state's water systems has been changed to *the training/testing of sufficient numbers of water treatment plant operators and distribution system operators to meet the treatment needs of the state's water systems.*

15. Enforce the nationwide EPA initiative to ban large capacity cesspools by 2005. (The use of these cesspools is thought to be extensive in Hawaii.)

CLEAN WATER BRANCH

Mission

The mission of the Clean Water Branch (CWB) is to protect the public health of residents and tourists, who recreate in and on Hawaii's coastal and inland water resources, and to also protect and restore inland and coastal waters for marine life and wildlife. The mission is to be accomplished through statewide coastal water surveillance and watershed-based environmental management through a combination of permit issuance, monitoring, enforcement, sponsorship of polluted runoff control projects, and public education.

Goals

The goals of the CWB are:

- To ensure that Hawaii's coastal waters are safe and healthy for people, plants and animals; and
- To protect and restore the quality of Hawaii's streams, wetlands, estuaries and other inland waters for fish and wildlife, recreation, aesthetic enjoyment and other beneficial uses.

Strategic Issues

Some of the activities required to meet these program goals have been completed. In 1999, DOH was seeking approval of its Coastal Nonpoint Pollution Control Program. In July 2000, Hawaii's Implementation Plan for Polluted Runoff Control *was completed and distributed. The plan is a culmination of planning done by the State of Hawaii in past years and also the first 5-year plan for implementation activities to control polluted runoff. The plan establishes long and short-term goals and activities to control nonpoint source pollution. More specifically, it establishes 15-year strategies and 5-year implementation plans to prevent and reduce polluted runoff in six categories [(a.) agriculture, (b.) forestry, (c.) urban, (d.) marinas and recreational boating, (e.) hydromodification, and (f.) wetlands and riparian areas] and schedules to evaluate the effectiveness of the polluted runoff controls used in the state.*

Watershed management activities continue to be an important initiative of CWB. In 1999, the branch worked with a nonprofit organization and community to "achieve common environmental management goals of both communities and agencies" in the Ala Wai Canal Watershed Project. Since then, the branch has also been a part of two other initiatives; the Koolau Mountains Watershed Partnership and the West Maui Mountains Watershed Partnership. These initiatives attempt to address polluted runoff throughout the watersheds.

In addition, Watershed Restoration Action Strategies (WRAS) are being developed in five "Category I Watersheds in Need of Restoration" (Hawaii's Implementation for Polluted Runoff Control, 2000, p. C-3) *to reduce or control polluted runoff. Category I watersheds do not currently meet, or face imminent*

threat of not meeting clean water and other natural resource goals. Upon completion and approval of these WRAS, watersheds become eligible for EPA funding to implement their WRAS.
An ongoing activity of CWB in ensuring the protection of state waters is the processing, review, and issuance of National Pollutants Discharge Elimination System (NPDES) Permits. Since the adoption of the NPDES General Permits Program in 1991, only 8% of permits issued by CWB were for Individual Permits; these types of permits are tailor-made to address specific activities and cover all different types of discharge. Applicants are required to submit a complete application for this permit 180 days prior to discharge. A public meeting may be required for this type of permit. The other 92% of permits issued by CWB are General Permits, covered under HAR 11-55. General permits cover minor activities such as stormwater discharges from construction activities and industrial facilities; the turn-around time for processing this type of permit is 30 days.

Prioritized Objectives & Strategies

Objective A. Control point source discharges through the issuance of appropriate NPDES permits to maintain the beneficial uses of the State receiving waters.

Strategies:

- ✧ Administer and enforce statewide water pollution laws and rules. This is achieved through permitting of point sources, compliance monitoring, inspections, investigations of complaints, and ambient water quality monitoring.
- ✧ The NPDES permit program remains the centerpiece of the water pollution control effort for our receiving waters. The challenge for the permit program is to improve and enhance program capability by issuing individual permits according to a 5-year plan, and by providing technical assistance and training.

The control of the storm water discharges is a high priority for the EPA and the State. During 1990, the Department worked in partnership with EPA to incorporate storm water permitting authority and water quality-based standards into NPDES permits. By October *2000*, the State renewed the General Permits for industrial storm water discharges and integrated this program activity into revisions of the five-year plan.

The latest federal mandate affecting the Clean Water Branch is the requirement under Section 402 (p) of the 1987 Amendments to the Clean Water Act, which in brief terms required municipalities with a population over 100,000, and certain industrial facilities to submit permit applications for the discharge of storm water. The law requires construction activities, which disturb 5 acres or more, and certain industrial facilities to submit permit applications for the discharge of storm water. Non-storm water discharges, from construction dewatering, underground storage tank remediation discharges, cooling water discharges less than 1 million gallons/day, hydro-testing water from water tanks or piping systems, effluent discharges from petroleum bulk stations and terminals, and effluent discharges from well drilling activities, are also covered by General Permits.

Approximately *600* permits are currently under the jurisdiction of the Clean Water Branch for monitoring and compliance. In addition, the EPA *has issued* regulations *which become effective in March 2003* for Phase II of the storm water program to cover those facilities not covered in Phase I.

Objective B. Ensure that Section 404 permitted activities will not adversely impact the beneficial uses of the State receiving waters.

Strategy:

- ✧ Administer the Sec. 401 Water Quality Certification (WQC), which is a requirement under the US Army Corps of Engineers' Section 404 Permit Program. This is a "statement of reasonable assurance that the construction activity will comply with the applicable provisions of the State's water quality standards." Construction activities include fill work in our nearshore and inland waters.

Objective C. Identify impaired water bodies and restore their beneficial uses.

Strategies:

- ✧ Enhance the ambient Water Quality Monitoring Program to include a new monitoring effort directed towards toxic chemical monitoring to establish baseline data for the purpose of adopting standards to control waste discharges.
- ✧ Assess the impact of streams entering recreational beaches through a partnership of a joint monitoring program with the City and County of Honolulu. Information gained on any contamination found will be used to address the problem at the source.
- ✧ Develop protocols and resources in cooperation with the University of Hawaii to monitor pathogens in polluted runoff and wastewater. Public health will be protected through preventing exposure to those pathogens.
- ✧ Develop a partnership with the community through a water quality monitoring program using volunteers from various neighborhoods in the State.
- ✧ Every two years, produce a report on the overall condition of the state's recreational waters and submit the report to EPA. This is not a high priority activity, but is nonetheless required by EPA *[305 (b) Report].*
- ✧ Every two years, with assistance from EPA, identify and prioritize Hawaii's most polluted waters and submit the list to EPA *[§303 (d) list].*

Objective D. Ensure expeditious compliance with State water pollution rules.

Strategies:

- ✧ Maintain the high level of enforcement awareness as required by the delegation of the National Pollutant Discharge Elimination System (NPDES) program.
- ✧ Implement pollution prevention strategies to reduce the incidence of permit violations. Incorporate these strategies in the permitting and enforcement functions of the branch.

Objective E. Control polluted runoff through public/private partnerships.

Strategies:

- ✧ Foster partnerships with other governmental, business, and nonprofit agencies involved in non point source pollution control; promote community based watershed management through education and voluntary compliance; provide federal dollars for demonstration projects from the public and private sectors relating to nonpoint source control; encourage and support programs for environmental education; and promote pollution control projects in watersheds with water bodies that have been designated as impaired. Successful demonstration projects are promoted as recommended techniques for landowners to apply as best management practices.
- ✧ Work with partners in: (a) reducing runoff of contaminants (e.g. oil, asbestos, heavy metals and solvents) from roads into surface waters; (b) nutrients from non point sources; (c) improving drainage design and management of storm water; and (d) reducing pollutants from emergency dewatering activities.

Objective F. Improve water quality in priority watersheds.

Strategy:

- ✧ Promote new watershed management initiatives, and look for opportunities to work with local community-based nonprofit organizations interested in pursuing watershed management and support their efforts.

Objective G. Develop effective Water Quality Standards.

Strategies:

- ✧ Increase the number of chemical and biological databases to develop scientifically valid criteria that will legally support enforcement actions.
- ✧ Fill data gaps on toxics (water quality standards).
- ✧ Explore additional site-specific numerical/narrative standards as needed and appropriate.

Performance Measures

A. Control point source discharges through the issuance of appropriate NPDES permits to maintain the beneficial uses of the State receiving waters.

Performance Measure:

- ✧ Number of permits issued.

B. Ensure that Section 404 permitted activities will not adversely impact the beneficial uses of the State receiving waters.

Performance Measure:

- ✧ Number of certifications issued, waived, or denied.

C. Identify impaired water bodies and restore their beneficial uses.

Performance Measure:

- ✧ Number of assessed water bodies, and TMDLs in process and completed.

D. Ensure expeditious compliance with State water pollution rules.

Performance Measures:

- ✧ Number of major and minor NPDES facilities versus number of major and minor facilities that are in significant noncompliance (SNC) with their NPDES permit conditions. [*SNC: 40 CFR 123.45*

Violations of permit effluent limits that exceed the Appendix A "Criteria for Noncompliance Reporting in the NPDES Program".]

- ✧ Number of violation letters issued to NPDES permitted facilities and to facilities without NPDES permits.
- ✧ Number of civil referrals sent to the Attorney General; Number of civil cases filed; Amount of civil cases concluded, penalties assessed and collected.
- ✧ Number of Criminal referrals filed in State Court; Number of criminal referrals concluded, penalties assessed and collected.
- ✧ Number of NPDES permittees inspected.

E. Control polluted runoff through public/private partnerships.

Performance Measure:

- ✧ Number of community or agency based committees formed to address polluted runoff.

F. Improve water quality in priority watersheds.

Performance Measures:

- ✧ Number of new watershed management initiatives in the state.

(◈ These measures have been designated 'Core Performance Measures' by EPA, and will be tracked by the DOH to report both locally and nationally.)

WASTEWATER BRANCH

The Wastewater Branch (WWB) has not changed very much since the 1999 strategic plan. Its primary functions are: (a) to manage the joint State-County-Federal Water Pollution Control Revolving Fund Program including administrative, fiscal, engineering and construction inspection oversight to ensure that costs, schedules and technical performance standards are met during the construction of public wastewater treatments works; and (b) to regulate all new and existing wastewater treatment works pursuant to Chapter 11-62, "Wastewater Systems" of the Hawaii Administrative Rules and administers the Statewide Operator Training Center.

Organizational Structure

Nothing has changed in the organizational make up of the WWB. The three implementing sections remain the same; Grants Management, Planning/Design, and Construction/Operations in addition to the Training Center, which conducts annual training for wastewater treatment plant operators.

Prioritized Objectives & Strategies

Objective A. Operation and Maintenance compliance of all existing wastewater treatment facilities: Achieve *85%* compliance for all existing wastewater treatment works (WTW) by the year *2005.*

Strategies:

- ✧ Annually inspect all WTWs which have received a "Conditional Acceptance" or "Unacceptable" rating in the previous year.
- ✧ Conduct multiple inspections for WTW receiving *"Unacceptable"* rating during the current year.
- ✧ Issue notice of violation orders (NFVOs) for those WTWs not in compliance.

- ✧ Implement an early warning system to warn owners that their WTW will soon exceed the design capacity, and to initiate plans for expansion.
- ✧ Finance eligible projects that would improve compliance or result in compliance through the state revolving fund (SRF) program.

Objective B. Reduce pollutant loadings from nonpoint sources.

1. *Prohibit new cesspools throughout the state by the year 2002.*
   Strategies:
   - ✧ Give high priority for SRF funding eliminate cesspools throughout the state.
   - ✧ Use incoming building permit applications to require upgrading of existing cesspools and failing wastewater systems.
   - ✧ Create partnership with counties to meet this objective.

2. Improve Individual Wastewater Systems (IWS) program by year *2002*.
   Strategies:
   - ✧ Total prohibition of *new* cesspools by the year *2002*.
   - ✧ Implement an outreach program for owners of existing septic tanks and aerobic treatment systems to encourage them to inspect and maintain their systems; develop training for inspectors and pumpers of septic tank systems.
   - ✧ Conduct joint final construction inspections of individual wastewater systems for about 10% of the new systems.

3. Finance nonpoint source projects through the SRF.
   Strategies:
   - ✧ Coordinate with the Clean Water Branch annually to develop a nonpoint source project priority list.
   - ✧ Coordinate with the Clean Water Branch to conduct an outreach program for potential applicants for SRF financing of nonpoint source projects.
   - ✧ Finance at least one nonpoint source project through the SRF program annually.

Objective C. Promote wastewater reclamation and beneficial wastewater sludge use.
Increase effluent reuse to 15% of total wastewater, and sludge reuse to 20% of sludge generated by the year 2005.
Strategies:
- ✧ Provide SRF financial incentives for effluent and sludge reuse projects.
- ✧ Institute policies and rules to promote reuse, including coordination with EPA.
- ✧ Conduct public education activities for effluent and sludge reuse.
- ✧ Assume delegation of the sludge management permit program from EPA by *2005*.
- ✧ Prepare and introduce legislation for the *2002* Legislature to adopt mandatory use of reclaimed water.
- ✧ Provide active technical support to owners of reuse facilities.

Performance Measures

A. Operation and Maintenance compliance of all existing wastewater treatment facilities.
Performance Measure:
- ✧ Percent of existing wastewater treatment plants in compliance.

B. Reduce pollutant loadings from nonpoint sources.
Performance Measures:

- ✧ The number of cesspools eliminated.
- ✧ Number of nonpoint source projects financed through the SRF annually.

C. Promote wastewater reclamation and beneficial wastewater sludge use.
Performance Measure:

- ✧ Actual percentage of wastewater and sludge reused.

Data from the Environmental Protection Programs

Italized numbers represent new or revised data.

CLEAN AIR BRANCH

This shows data from the Honolulu Station. The 1999 strategic plan showed data froom the Kapolei Station.

AIR QUALITY					
in ug/m^3	1995	1996	1997	1998	1999
PM_{10} std	50	50	50	50	50
PM_{10} Honolulu	*14*	*14*	*14*	*9*	*14*
SO_2 std	80	80	80	80	80
SO_2 Honolulu	*3*	*3*	*2*	*2*	*2*
			Source: DOH Clean Air Branch		

Releases of Toxic Chemicals into the Air								
	1992	1993	1994	1995	1996	1997	1998	1999
Original Industries (Tons)	*298*	*265*	*263*	*232*	*248*	*205*		
Original & New Industries							*1,783*	*1,239*

Carbon Monoxide 1-hr ave.	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
National Standard (ug/cubic meter)	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
1-Hour Average , Honolulu Station (ug/cubic meter)	2,700	3,200	4,800	3,583	2,264	2,127	*4,133*	*6,726*	*4,788*	

SOLID & HAZARDOUS WASTE BRANCH

Figures for the years 2001 to 2004 are projections based on the number of contaminated sites requiring clean-up.

Number of Contaminated Sites Returned to Safe Use (cummulative)												
Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Underground Storage Tanks (Cumm)	*67*	*135*	*200*	*253*	*329*	*532*	*786*	*1,048*	*1,113*	*1,175*	*1,237*	*1,300*
Underground Storage Tanks(Annual)	*67*	*68*	*65*	*53*	*76*	*203*	*254*	*262*	*65*	*62*	*62*	*63*
			Source: DOH Solid & Hazardous Waste Branch									

SAFE DRINKING WATER BRANCH

Water Systems by Island		
Kauai	*25*	*19.00%*
Oahu	*38*	*29.00%*
Molokai	*10*	*8.00%*
Maui	*17*	*13.00%*
Lanai	*2*	*1.00%*
Hawaii	*39*	*30.00%*

Water System Ownership		
Federal	*17*	*13.00%*
State	*10*	*8.00%*
County	*58*	*44.00%*
Private	*46*	*35.00%*

UIC Drainage Injection Wells Statewide, by Permit Status, for year 2000.

Water System Ownership		
Federal	*17*	*13.00%*
State	*10*	*8.00%*
County	*58*	*44.00%*
Private	*46*	*35.00%*

UIC Drywells Statewide, by Permit Status, for year 2000.

UIC Drywells		
Permits Active	*146*	*73.00%*
Permits Expired	*25*	*12.50%*
Permits Pending	*29*	*14.50%*

CLEAN WATER BRANCH

Beach Closure Days Due to Sewage Spills or Chemical Releases							
Year	1993	1994	1995	1996	1997	…	2000
Days closed per year	6	14	22	45	28	…	*16*
			Source: DOH Clean Water Branch				

NPDES General Permits vs. Individual Permits		
General permits	*987*	*92%*
Individual permits	*85*	*8%*

NPDES General Permits, By Activity	
Construction Storm Water	*475*
Industrial Storm Water	*189*
NC Cooling Water	*6*
Hydrotesting	*166*
Construction Dewatering	*144*
Bulk Terminal	*7*
Well Drilling	*1*

WASTEWATER BRANCH

Data for years 2001 to 2005 are projections based on the 15% target.

Percentage of Wastewater Recycled After Treatment								
Year	1998	1999	2000	2001	2002	2003	2004	2005
Annual Percentage	11.30%	11.60%	13.00%	*13.40%*	*13.80%*	*14.20%*	*14.60%*	*15%*
				Source: DOH Wastewater Branch				

Data for years 2001 to 2005 are based on the 85% target.

Wastewater Facilities Meeting Operation and Maintenance Requirements								
Year	1998	1999	2000	2001	2002	2003	2004	2005
Compliance percentage	*76%*	*78%*	*77%*	*78.60%*	*80.20%*	*81.80%*	*83.40%*	*85%*

Data for years 2001 to 2005 are projections based on the 20% target.

Percentage of Wastewater Sludge Reuse Estimate							
1998	1999	2000	*2001*	*2002*	*2003*	*2004*	*2005*
17%	*17%*	*17%*	*17.60%*	*18.20%*	*18.80%*	*19.40%*	*20%*